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10/731,310	12/08/2003	Selim Shlomo Rakib	034704-000062	3617
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EXAMINER				
PARRA, OMAR S				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/731,310

**Applicant(s)**

RAKIB ET AL.

**Examiner**

OMAR PARRA

**Art Unit**

2421

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 June 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 36-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 36-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments, see pages 7-9, filed 06/30/2008, with respect to the rejection(s) of claim(s) 36-40 under 35 U.S.C 102 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Kung, Akatsu and Addington.

### ***Specification***

2. The disclosure is objected to because it contains an embedded hyperlink and/or other form of browser-executable code. Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01.

The specification includes a hyperlink at page 59 line 23. Please perform the appropriate correction.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims **38 and 40** are rejected under 35 U.S.C. 102(e) as being anticipated by Kung et al. (hereinafter 'Kung', Pub. No. 2004/0228336).

Regarding claim 38, Kung teaches a gateway apparatus comprising:

a host bus **(380 and 360, Fig. 3)**;

a plurality of expansion connectors electrically coupled to said host bus **(arrow between transceiver 302 and bus 360, Fig. 3)**;

one or more expansion modules coupled to said host bus through one or more of said expansion connectors **(transceiver 302, Fig. 3)**, each expansion module including the appropriate circuitry to bidirectionally interface with an external network medium comprised of either a hybrid fiber coaxial cable of a CATV system, a digital subscriber line local loop, an analog plain old telephone service line or a satellite dish **([0025]; [0079]-[0080]; [0106])**;

one or more network interface adapters for coupling said gateway to one or more local area networks or busses which convey digital data to one or more items of customer premises equipment **([0025]; [0079]-[0080])**; transmitted from said one or more items of customer premises equipment to said gateway via one or more of said local area networks or buses for data or video or audio programs and to react thereto by appropriately controlling said one or more expansion modules to retrieve the requested data or video or audio program, and programmed to perform an IP packetization process to receive downstream digital data from one or more of said expansion modules which is not already in IP packet form and data from said management and

control process and encapsulate said data into internet protocol packets addressed to the customer premises equipment and one or more processes running on customer premises equipment which requested said data, and said host computer further programmed to perform a routing process to do all packetization, protocol conversion and routing functions necessary to route packets between any of said expansion modules and any of said one or more local area networks and/or busses ([0086] lines 5-12; where very device has an assigned IP address, [0044], and the gateway encapsulates into IP packets the DOCSIS received data, and vice versa, [0106]).

Regarding claim 40, Kung teaches an apparatus (300, Fig. 3) comprising:

a DOCSIS compatible cable modem for recovering digital data encoded in a DOCSIS downstream signal transmitted on a cable television system hybrid fiber coax medium (hereafter HFC) and for providing said recovered data at an output for use by a computer or other digital device coupled to said cable modem, and for transmitting upstream data from said computer or other digital device on a DOCSIS upstream transmitted on said HFC (transceiver 302, Fig. 3; [0080]; [0085]; ;

a tuner for tuning in a radio frequency carrier signal carrying a video signal: first means coupled to said tuner for recovering digital data encoding a video program in said video signal, said digital data being compressed for transmission over a data path ([0109]);

an adapter circuit comprising (settop module 350, Fig. 3 or processor 312, Fig. 3):

an decoder for decompressing said compressed digital data to generate uncompressed data encoding audio and video signals of said video program; an audio processor for converting said uncompressed digital data encoding said audio signal into an analog audio signal ([0086]; [0106]; [0109]-[0110]);

video signal generation means for converting said uncompressed digital data encoding a video signal into an NTSC, PAL, SECAM or composite format video signal;

means for conveying said audio and video signals to an input or inputs of a television set in a proper format for viewing and listening to said video program; first control means for controlling said cable modem, said tuner and said first means; second control means for controlling said adapter; and a data path coupling said first means to said adapter ([0086]; [0106]; [0109]-[0110]).

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims **36** rejected under 35 U.S.C. 103(a) as being unpatentable over Kung et al. (hereinafter 'Kung', Pub. No. 2004/0228336) in view of Akatsu et al. (hereinafter 'Akatsu', Patent No. 6,505,255).

Regarding claim 36, Kung teaches a gateway apparatus (**300, Fig. 3**) comprising:

a host computer (**306 in conjunction with processors P1-P6, Fig. 3**) having a host bus (**380 and 360, Fig. 3**);

one or more local area network interfaces or bus interfaces coupling said host computer to one or more local area networks or buses that carry data between said gateway and one or more devices located at a customer premises (**[0025]; [0079]-[0080]**);

external network interface circuit coupled to said host bus for interfacing said host computer to one or more networks external to said customer premises including at least a DOCSIS compatible cable modem for bidirectional digital data communication over a hybrid fiber coaxial cable network (**transceiver 302, Fig. 3; [0079]; [0080]**), and

wherein said host computer is programmed to implement an IP packetization process to receive said compressed digital video data from said one or more video external network interface circuits (**The transceiver receives digital compressed video streams and/or digital data, [0110]**) and packetize said compressed digital video data into IP packets addressed to the device and/or process which requested said digital video data (**[0086] lines 5-12; where very device has an assigned IP address,**

**[0044], and the gateway encapsulates into IP packets the DOCSIS received data, and vice versa, [0106]]** and which is coupled to said gateway by one or more of said local area networks or busses **(360, Fig. 3)**, and said host computer being further programmed with a routing process to receive said IP packets from said IP packetization process and to receive IP packets from said DOCSIS compatible cable modem and automatically do all routing, encapsulation and protocol conversion necessary to deliver said IP packets to a device and/or process in execution on a device coupled to said gateway apparatus via one of said local area network interfaces or bus interfaces and identified by address information in said IP packets **([0086] lines 5-12; where very device has an assigned IP address, [0044], and the gateway encapsulates into IP packets the DOCSIS received data, and vice versa, [0106]),** and to receive data from a device and/or process in execution on a device coupled to said gateway apparatus via one of said local area network interfaces or bus interfaces and do any and all deencapsulation, encapsulation, protocol conversion and routing necessary for each packet to be automatically delivered to an appropriate one or more of said external network interfaces coupled to a device and/or process to which each packet is addressed for upstream delivery via an appropriate medium of transmission to whatever device and/or process to which said data is addressed **([0078]; [0080]; [0106]),** and said host computer programmed with a management and control process for receiving requests for data from a device and/or process coupled to one or more of said local area network interfaces or said bus interfaces, and sending digital control data to one or more of said external network interface circuits to control them to obtain

said requested data from a source coupled to said gateway via one or more of said external network interfaces ([0078]; [0080]; [0106]).

On the other hand, although Kung teaches that the gateway can have other interfaces besides the HFC interface ([0100]), Kung does not explicitly teach that those network interfaces were the one or more video network interface circuits functioning to receive analog and/or digital video signals delivered over a hybrid fiber coaxial cable network or via satellite or terrestrial and deliver digital video data compressed using MPEG compression.

However, in an analogous art, Akatsu teaches a gateway that receives video inputs from different video networks (582, 586, 592, Fig. 5), and therefore, having more than one video network interface (618, 620, 624 and 632, Fig. 6; col. 6 line 41-col. 7 line 43). Akatsu also teaches that the gateway is able to obtain data, reformat it and do IP routing (Col. 9 lines 32-65).

Therefore, it would have been obvious to an ordinary skilled in the art at the time of the invention to have modified Kung's invention with Akatsu's multiple interfaces for multiple video inputs for the benefit of expanding the user's possibility of getting a different service (lets say 'satellite') and not be limited to just one service (lets say 'cable') with the aid of the same device.

7. Claims **37 and 39** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kung et al. (hereinafter 'Kung', Pub. No. 2004/0228336) in view of Akatsu et al. (hereinafter 'Akatsu', Patent No. 6,505,255) in further view of Addington (Patent No. 6,928,656).

Regarding claims 37 and 39, Kung teaches a gateway apparatus (with respective process) comprising:

a host computer **(306 in conjunction with processors P1-P6, Fig. 3)** having a host bus **(380 and 360, Fig. 3)** and controlled by at least a management and control process ;

one or more network interface means for coupling said host computer to one or more local area networks and/or one or more buses that carry upstream and downstream data between said gateway and one or more devices located at a customer premises **([0025]; [0079]-[0080]; [0106])**;

external network receiver interface means coupled to said host bus for interfacing said host computer to one or more networks external to said customer premises, said external network interface means comprising a DOCSIS cable modem means for receiving downstream broadband data **(The transceiver receives digital compressed video streams and/or digital data, [0110])**, and for receiving upstream data from one or more devices coupled to one or more of said network interfaces and transmitting said data on a DOCSIS upstream on an external network comprised of a hybrid fiber coaxial cable system **([0086] lines 5-12; where very device has an assigned IP address,**

**[0044], and the gateway encapsulates into IP packets the DOCSIS received data, and vice versa, [0106]),**

an IP packetization means which may be part of said host computer and which is coupled to said host bus, for packetizing compressed digital data received from said one or more video network interface means into internet protocol packets (hereafter IP packets) **(Processor P5, Fig. 3; ([0086] lines 5-12);**

a routing means which may be part of said host computer and coupled to said host bus and having one or more outputs coupled to said one or more network interface means and coupled to receive said IP packets from said IP packetization means and coupled to receive IP packets from said DOCSIS cable modem for routing said IP packets and delivering each said IP packets to the appropriate network interface means for delivery to the device which ordered data in said IP packet, and for receiving upstream data from devices and/or processes coupled to said one or more local area networks or busses and routing said data to the appropriate external network interface means for upstream transmission **([0086] lines 5-12; where very device has an assigned IP address, [0044], and the gateway encapsulates into IP packets the DOCSIS received data, and vice versa, [0106]).**

and said external network interface means further comprising one or more video network interface means functioning for receiving analog and/or digital video signals delivered over a hybrid fiber coaxial cable network or via satellite or via terrestrial and for delivering from said received video signals digital video data compressed using MPEG compression;

On the other hand, although Kung teaches that the gateway can have other interfaces besides the HFC interface ([0100]), Kung does not explicitly teach that those network interfaces were the one or more video network interface circuits functioning to receive analog and/or digital video signals delivered over a hybrid fiber coaxial cable network or via satellite or terrestrial and deliver digital video data compressed using MPEG compression.

However, in an analogous art, Akatsu teaches a gateway that receives video inputs from different video networks (582, 586, 592, Fig. 5), and therefore, having more than one video network interface (618, 620, 624 and 632, Fig. 6; col. 6 line 41-col. 7 line 43). Akatsu also teaches that the gateway is able to obtain data, reformat it and do IP routing (Col. 9 lines 32-65).

Additionally, the combined teachings of Kung and Akatsu teach all the limitations as discussed above. On the other hand, Kung and Akatsu do not explicitly teach that the received packets are in the form of IP packets encapsulated in MPEG packets.

However, an analogous art, Addington teaches a method for delivery of IP data over MPEG-2 transport stream over HFC medium.

Therefore, it would have been obvious to an ordinary skilled in the art at the time of the invention to have modified Kung and Akatsu's invention with Addington method for the benefit of 'making an efficient use of the bandwidth and uses the same structure and user equipment' (Addington, col. 2 lines 20-24).

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to OMAR PARRA whose telephone number is (571)270-1449. The examiner can normally be reached on 9-6 PM (M-F, every other Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Miller can be reached on 571-272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John W. Miller/  
Supervisory Patent Examiner, Art Unit 2421

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